

REMARKS

The pending claims are claims 2, 3, 7, 11, 13 and 17-31.

New Claims 29-31

Claims 8-10 have been cancelled herein without prejudice.

Claims 29-31 are new and correspond to claims 2, 3, and 7, respectively. Accordingly, no new search is necessitated.

Allowable Subject Matter

In the June 5, 2008 Office Action, the Examiner indicated that claims 2-3, 7, 11, 13 and 17-22 are allowed. Applicants acknowledge same.

Rejection of Claims on Reference Grounds, and Transversal Thereof

In the June 5, 2008 Office Action:

claims 23-28 were rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Lapluye *et al.* (U.S. Patent No. 5,156,892). Applicants traverse such rejection.

It is well established, as a matter of law, that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Clearly, Lapluye does not satisfy this standard.

Initially it is noted that the Examiner recited that “[t]he scouring of metal surface with chromic acid prior to surface treatment as taught by Lapluye reads on the claimed step of contacting a sacrificial copper element with a cleaning solution comprising a corrosion inhibitor” (see the

sentence bridging pages 3-4 of the June 5, 2008 Office Action). Applicants vigorously disagree with the Examiner's contention.

It is well known in the chemical arts that chromic acid is regularly used to remove the protective oxide coating found on copper surfaces (e.g., which forms upon contact with atmospheric oxygen). It is unclear to applicants how a "scouring" composition, used to scour oxide material from a metal surface, is somehow interpreted to be inherently or expressly equivalent to "contacting a sacrificial copper element with the cleaning solution comprising said corrosion inhibitor." As noted, the "scouring" composition (including chromic acid) per Lapluye removes the protective coating from the copper hence returning the metal to its original aesthetically pleasing color and brilliance (see, Lapluye, col. 1, lines 10-18). In contrast, the corrosion inhibitor in the cleaning solution recited in claim 23 forms a protective coating on the copper surface thus "prevent[ing] corrosion of the copper during the cleaning step" (see the instant specification, page 1, lines 14-15).

Moreover, Lapluye teaches the exposure of both a treated (i.e., treated with a corrosion inhibitor) and an untreated (i.e., not treated with a corrosion inhibitor) copper surface to the hydrogen sulfide. Without the comparison of the treated and untreated metals, Lapluye lacks the data to buttress the inhibition teaching of the application. Given the comparative nature of Lapluye, one skilled in the art considering Lapluye would not consider it obvious to contact both a "treated" sacrificial copper element and a "treated" microelectronic device having exposed copper surface to the hydrogen sulfide. There would be no reason for one skilled in the art considering Lapluye to contact both a "treated" sacrificial copper element and a "treated" microelectronic device having exposed copper surface to the hydrogen sulfide.

Accordingly, the Lapluye reference does not anticipate nor make obvious applicants' claims 23-27. Withdrawal of the rejection of claims 23-27 is respectfully requested.

Fees Payable

Claims 29-31 have been added and claims 8-10 have been cancelled. As such, no added claims fee is due at this time.

Authorization is hereby given to charge any deficiency in applicable fees, or credit any overcharges, for this response to Deposit Account No. 13-4365 in the name of Moore & Van Allen PLLC.

Conclusion

Based on the foregoing, claims 2, 3, 7, 11, 13 and 17-31 are in form and condition for allowance. If any additional issues remain, the Examiner is requested to contact the undersigned attorney at (919) 286-8000 to discuss same.

Respectfully submitted



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By: _____

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